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1989 Alabama Economic Outlook

Center for Business and Economic Research

C&BA

College of Commerce and Business Administration
The University of Alabama

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1989 Alabama Economic Outlook

Alabama Econometric Model Project

William D. Gunther, Acting Director
Deborah Hamilton, Assistant Director
Ahmad Ijaz, Research Associate

Other UA/CBER Contributors to this Report

Beth Gibbs, Research Associate
Carroll Greenhill, Programmer/Analyst
Melissa Heinrich, Statistical Data Clerk
Kathryn Rivers, Research Assistant
Annette Watters, Assistant Director

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For further information on the Alabama Econometric Model or its products, contact:

Center for Business and Economic Research
The University of Alabama
Box 870221
Tuscaloosa, Alabama 35487-0221

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Challenges and Opportunities in a Global Economy

Alabama residents work in a Japanese-owned factory while Japanese factories use Alabama coal. Alabamians purchase cars made in Europe while Europeans purchase goods in cardboard boxes made in Alabama. In a myriad of ways often not very visible, Alabama is becoming more and more a part of a "global" economy, a transition which presents both challenges and opportunities for Alabama firms.

"... Alabama is becoming more and more a part of a 'global' economy, a transition which presents both challenges and opportunities for Alabama firms."

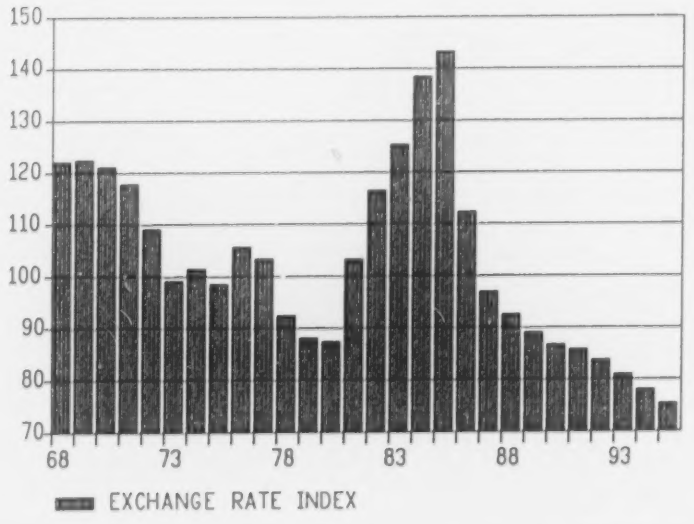
The challenges arise from the adjustments which must be made when imports impact domestic production, while the opportunities arise when production costs and exchange rate differences make Alabama products competitive in world markets.

Since these opportunities are highly sensitive to the value of the dollar on the world market, it is important that exchange rate trends be consistently monitored. Changes in the value of the dollar, as recent events amply testify, significantly impact the competitiveness of firms abroad and the competitiveness of imported goods in our markets.

What is the future for the dollar on world markets? While rising real interest rates during the fourth quarter of 1988 and early 1989 produced some early gains for the dollar, the "twin-deficit" problem (Federal budget deficit and trade deficit) remains, and until it is brought under control significant downward pressure on the dollar will remain. Therefore, relative to the other major trading currencies, additional declines of 6 to 9 percent are expected by the end of 1989.

This devaluation, together with the continued moderate economic growth in other countries, should combine to produce opportunities for selected export growth. While export growth in 1989 will not match its 1988 performance, it will nonetheless be an important part of 1989 growth, accounting for between one fourth and one third of GNP growth. Alabama firms should position themselves now to be able to take advantage of these opportunities. □

Exchange Rate Index (Federal Reserve Board)
Weighted Average of the U.S. Dollar vs 10 Countries



1989 Forecast

Selected Indicators

	1989
Gross National Product	
(Billions of 1982 $)	$4,105
Growth Rate	2.7%
U.S. Unemployment	
Rate (Percent)	5.5%
Inflation Rate	5.1%
National Income	
(Billions of Current $)	$4,132.4
Growth Rate	6.2%
Total Personal Income	
(Billions of Current $)	$4,293.7
Growth Rate	7.2%
Net Exports	
(Billions of Current $)	-$87.21
Prime Loan Rate	10.5%
Consumer Expenditures	
(Billions of Current $)	$3,377.4
Growth Rate	7.04%

The U.S. Outlook

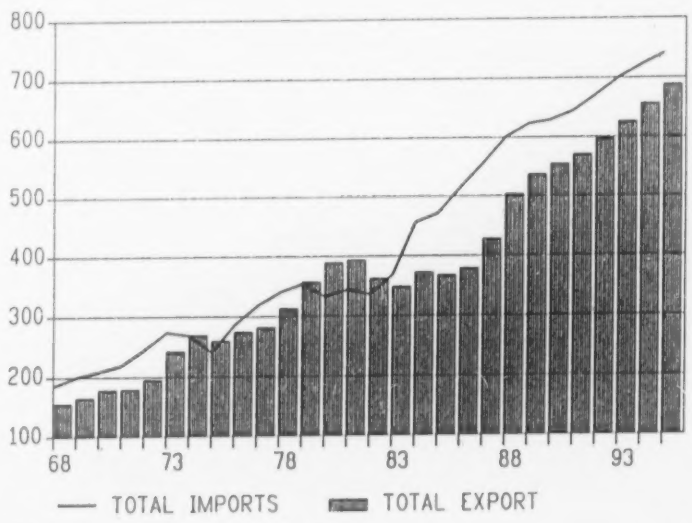
The long awaited slowing in the rate of growth of the economy may have begun in the fourth quarter of 1988. The U.S. Department of Commerce estimates that in the fourth quarter of 1988, GNP grew at an annual rate of 2 percent, *down* from a 2.5 percent annual growth rate in the third quarter. However, much of this slowdown can be attributed to the impact of the drought on crop and livestock output. A recovery for this sector in early 1989 will boost real GNP growth by 2.5 percentage points during the first quarter. As a result, real GNP growth during the first quarter is expected to be 4.9 percent.

Following the adjustment for agricultural output in the first quarter, growth is expected to return to a more modest rate of 2.1 percent in the second quarter, and 1.7 percent in each of the two remaining quarters of 1989. This will produce an overall growth rate of 2.7 percent for 1989, down more than a full point from the 3.8 percent rate for 1988.

Capacity Utilization

A slower GNP growth rate may be good news for capacity utilization problems. While the overall capacity utilization rate in

Total Imports vs Total Exports
1982 Dollars



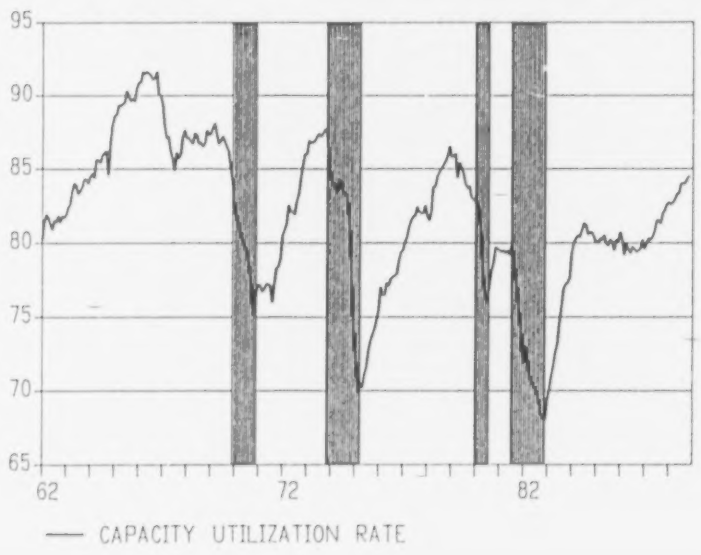
the U.S. economy in December 1988 was 84.4 percent, some sectors in the economy were approaching much higher levels. The paper industry, for example, was estimated to be operating at over 98 percent of capacity in November of 1988, while the chemicals industry was operating at 89.1 percent. Price increases in these sectors, while restrained to date, could occur in 1989. If they do and if they spread to other sectors of the economy, they would initiate inflationary expectations throughout the economy. These events could trigger a tighter monetary stance on the part of the Federal Reserve, resulting in a slower rate of growth than currently anticipated.

"Consumer prices are expected to rise at an annual rate of 5.1 percent in 1989 compared to a 4.1 percent rate in 1988."

Consumer Spending

Real consumer spending has been a strong force in the current economic expansion, growing by a strong 4.8 percent in 1984, 4.7 percent in 1985, and 4.3 percent in 1986. That growth fell to a more sustainable 2.7 percent in 1987 and 2.8 percent in 1988. Current projections anticipate continued growth in real consumer spending with 1989 producing a slightly slower 2.5 percent increase.

Capacity Utilization Rate -- Manufacturing



Business Fixed Investments

Capacity problems in some sectors will provide opportunities for new investment. But higher interest rates, uncertainties over reduced export demand if the dollar weakens, and lower profits as a result of higher debt service costs will dampen investment spending. While business fixed investment in 1988 grew at an annual rate of 9.5 percent, a slower growth of only 3.4 percent is forecasted for 1989. The expected slowdown in GNP growth may relieve some of the capacity pressures and thus reduce the urgency for new plant and equipment investments. This will allow for a more orderly and slower pace of investment to occur. Paper, chemicals, computer equipment, and communications equipment shortages will provide opportunities for selected business investment growth.

The Federal Deficit

It is important that the President's deficit reduction plan be credible to the world financial markets. If these markets do not believe that the deficit can be reduced without raising taxes, sharp downward pressures on the dollar will occur. This will precipitate higher interest rates producing a greater slowdown in growth than expected.

Current forecasts call for a 1989 fiscal year deficit of $146.3 billion, up from the 1988 projected deficit of $141.6 billion.

Consumer Prices

Considering the relatively moderate GNP growth projected for 1989, it is not likely that consumer prices will show much upward movement. However, the capacity constraints in some sectors, along with the rising import prices associated with a weaker dollar, will provide some upward direction to consumer prices. Consumer prices are

expected to rise at an annual rate of 5.1 percent in 1989 compared to a 4.1 percent rate in 1988.

Employment and Wages

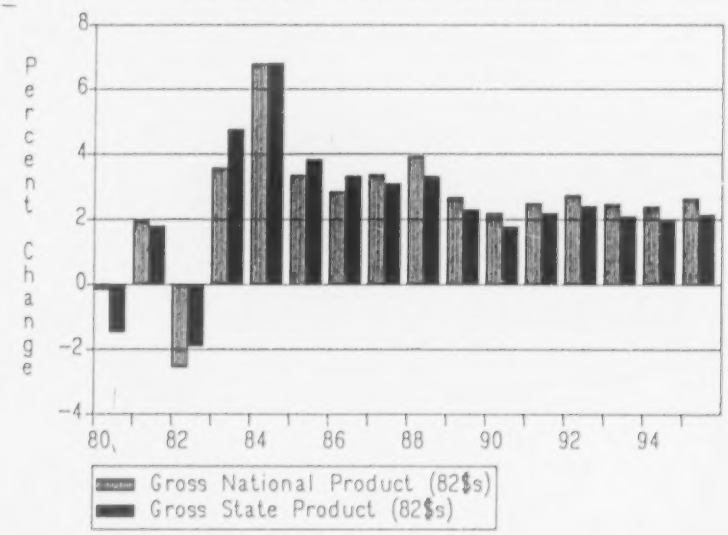
The unemployment rate continues to give mixed signals on a month-to-month basis. With fears of capacity constraints fueling inflation, strong employment figures (normally a positive signal) tend to be met with a declining stock market. The market interprets these figures as portending rising inflation. However, a modestly growing economy will not create employment shortages and, with only some regional variations, wage pressures should also be modest in 1989. The unemployment rate is expected to average 5.5 percent in 1989, the same as the 1988 rate.

Interest Rates

A slight rise in consumer prices, together with capacity induced inflationary pressures in 1989, may force the Federal Reserve to raise interest rates slightly. However, a slowdown in the national economy, mainly due to an anticipated decline in exports and consumer expenditures in the second half of the year, should keep downward pressure on interest rates. The prime rate is estimated to average around 11.3 percent in 1989, moving down to 10.6 percent in 1990. The three-month T-bill rate is expected to be 8.3 percent in 1989, falling to 7.7 percent by 1990. Mortgage rates on new homes may rise to 10.0 percent in 1989, and 10.1 percent in 1990. A reduction in both the trade and federal deficits during the latter part of 1989 and 1990 will exert downward pressure on interest rates.

"The prime rate is estimated to average around 11.3 percent in 1989, moving down to 10.6 percent in 1990."

Gross National Product vs Gross State Product
1982 $s -- Percent Change



Energy

Energy prices continue to be a very large unknown. Although OPEC has finally put together an agreement which will limit production and support the OPEC target price of approximately $18 per barrel, maintaining production quotas has long been a problem with OPEC members. Although mid-January 1989 prices were running at $17.00-$17.50 per barrel, projections of $15-$16 for mid-1989 are not unrealistic.

Natural gas prices are not expected to show much improvement in part because of the large volumes of imported gas from Canada and the mild winter. However, any increase in the price of crude oil or new production quotas would tend to increase the demand for natural gas. Prices ranging between $1.60 and $1.80 are likely for 1989.

Sector Bright Spots

As the dollar continues to adjust on foreign markets, export growth will offer some opportunities for expansion. Sectors which appear to be well positioned to participate in this growth are paper, machinery and equipment, transportation equipment (aircraft), and business equipment (especially computers). □

ALABAMA'S ECONOMY IN 1989

OVERVIEW

Total output in Alabama during the period 1984 to 1988 increased at an average annual real rate of 4.1 percent. As the state's industrial production nears full capacity, the growth in real output will slow to a more moderate rate of 2.3 percent in 1989 and 1.8 percent in 1990.

During the same five year period, total employment in the state increased at an average annual rate of 2.7 percent, or approximately 160,000 new jobs. A slower growth rate and increases in productivity will slow employment growth in 1989 to 1.8 percent or approximately 34,000 jobs and to 1.3 percent in 1990.

"A slower growth rate and increases in productivity will slow employment growth in 1989 to 1.8 percent or approximately 34,000 jobs and to 1.3 percent in 1990."

The relatively moderate overall growth in both real output and employment is expected to raise the unemployment rate in the state close to 7 percent in 1989 and 7.4 percent in 1990.

Alabama's relatively large manufacturing sector has helped the state achieve a slightly higher than expected growth in 1988. Strong demand for manufactured products both in domestic and international markets helped the manufacturing sector achieve an average annual real growth rate of 4.1 percent in 1988. However, this growth is expected to slow in 1989 to 2.9 percent and to 1.8 percent in 1990.

The state's construction sector is expected to decline in both real output and employment in 1989 as a result of a surplus of units in the commercial real estate sector and higher mortgage rates. The decline in construction activity in Alabama is also expected to affect the growth of real output and employment in related manufacturing industries such as lumber and steel. In 1989 the real output for both wholesale and retail trade together is estimated to grow at an average annual rate of 2.1 percent, while the services sector is estimated to grow at an average annual rate of 2.4 percent.

1989 FORECAST

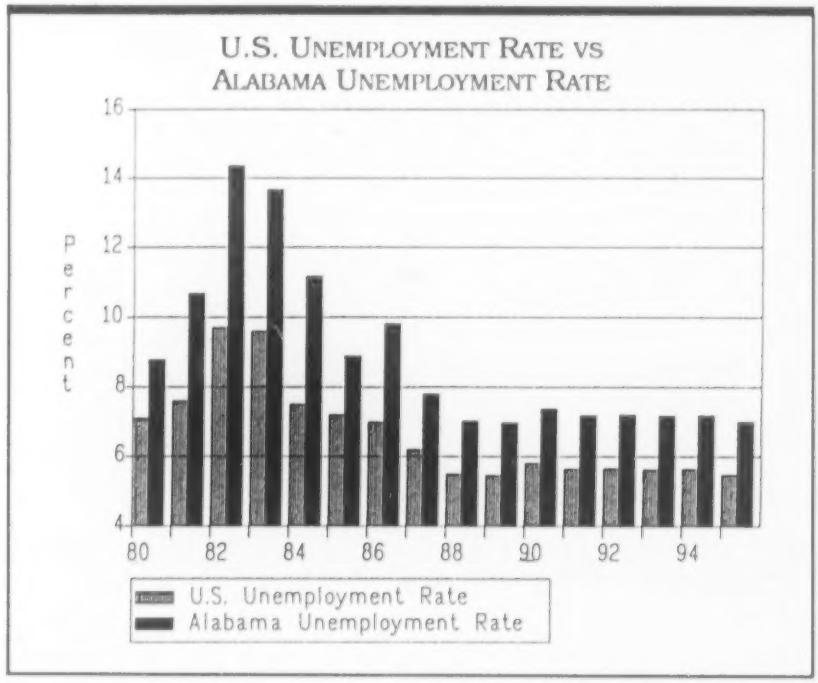
SELECTED INDICATORS

	1989
Gross State Product	
(Millions of 1982 $)	$52,750
Growth Rate	2.3%
Alabama Unemployment	
Rate (Percent)	7.0%
Alabama Total Personal Income	
(Millions of Current $)	$51,146
Growth Rate	7.0%
Alabama Per Capita	
Income (Current $)	$12,304
Growth Rate	6.1%
Durable Manufacturing	
Wages	$23,800
Growth Rate	4.5%
Nondurable Manufacturing	
Wages	$21,100
Growth Rate	4.2%
Total Population	
(Millions)	4.16

1989 Forecast

Output

	Millions of 1982 $	Growth Rate
Total Output	$52,750	2.3%
Manufacturing	13,653	2.9
Mining	1,669	-1.5
Construction	1,491	-1.1
Trade	8,647	2.1
Services	6,694	2.4
FIRE	6,419	3.7
TCPU	5,177	2.8
Government	7,454	1.4
Farming	1,547	2.3



Manufacturing

The manufacturing sector in Alabama has grown at a stable, healthy rate and has been one of the strongest growing sectors in the state in recent years. In 1989 the manufacturing sector is expected to continue on this path of steady growth.

The effects of the declining value of the dollar in international exchange markets became evident during late 1987 and 1988 when manufacturing output increased at an average annual real rate of 3.2 and 4.1 percent respectively. The lower value of the dollar helped raise the price of imported goods and make Alabama manufacturers increasingly competitive in domestic markets.

The increases in exports, along with a significant increase in foreign direct investments in the state have also significantly helped the Alabama manufacturing sector achieve a steady growth in real output. Despite this growth, employment in manufacturing has not kept pace with the increases in output. The restructuring of the industrial sector towards more automated production facilities is one of the main reasons for the relatively slow growth in employment.

Output in the manufacturing sector in Alabama accounts for approximately 26 percent of total real state output, or $52.7 billion in 1989, and 19 percent of total state employment or approximately 380,000 jobs. Real output in the manufacturing sector is expected to increase at an average annual rate of 2.9 percent in 1989 and 1.8 percent in 1990. Manufacturing employment is estimated to increase at an annual rate of 0.9 percent in 1989 and 0.4 percent in 1990. Average annual wage rates in the state's manufacturing sector are expected to reach $22,400 in 1989, an increase of 4.4 percent over 1988.

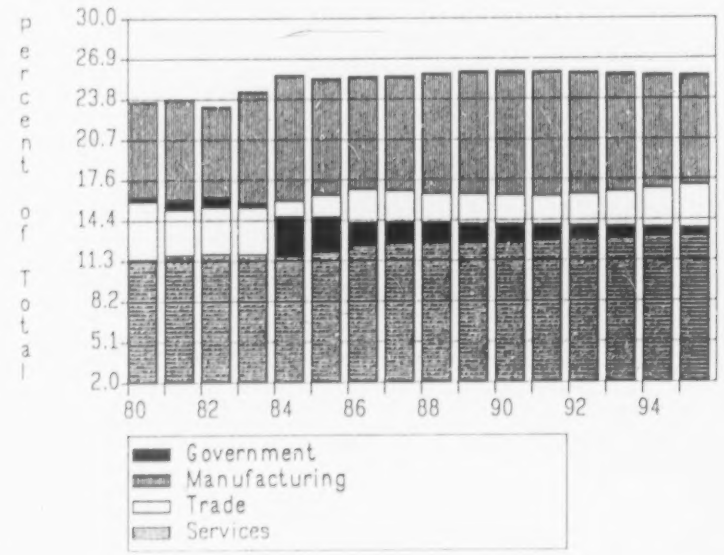
Nondurable Manufacturing

Nondurable manufacturing in Alabama accounts for approximately 12 percent of total real state output and about 10 percent of total state employment. The real output of this industry group is expected to grow at a moderate rate of 2.0 percent 1989, slowing to 1.3 percent in 1990. By comparison durable goods real output is estimated to increase by 3.7 percent in 1989 and 2.2 percent in 1990.

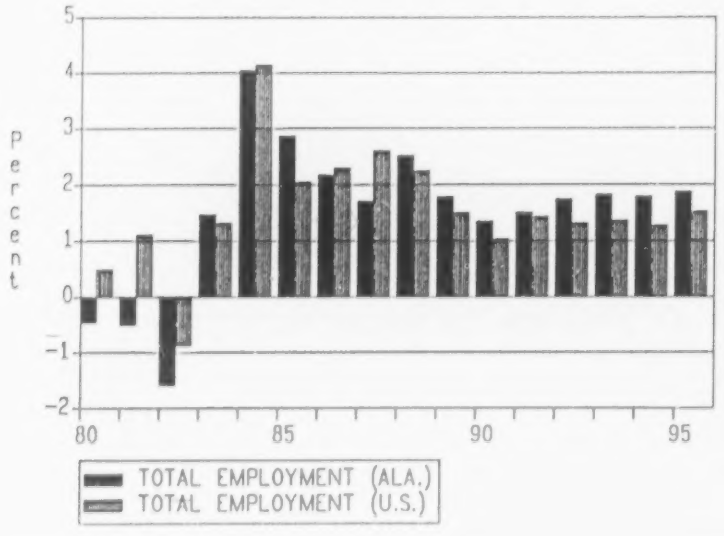
"The lower value of the dollar helped raise the price of imported goods and make Alabama manufacturers increasingly competitive in domestic markets."

Total employment in nondurable manufacturing is estimated to grow at an average annual rate of 0.2 percent in 1989, adding approximately 400 new jobs, and to decline by 0.5 percent in 1990. The relatively low rate of growth in total nondurable manufacturing employment is mainly due to a large share of total employment in the textiles and apparel industries. These industries are labor intensive and have faced a higher degree of import competition than the durable manufacturing group.

Major Sectors Share of Total Output



Alabama Total Employment Growth Rates



1989 Forecast

Employment

	Thousands	Growth Rate
Total Employment	1,974	1.8%
Proprietors'	296	3.4
Total Wages & Salary	1,678	1.5
Manufacturing	380	0.9
Mining	12	-1.2
Construction	77	0.9
Trade	353	1.0
Services	319	3.1
FIRE	75	2.6
TCPU	75	1.4
Agri. Service, Forestry & Fish.	10	3.0
Government	367	1.0
Farming	12	7.5

Although all nondurable manufacturing industries are expected to show modest gains in real output, some industries are expected to perform relatively better than others. Heavily labor intensive industries like apparel and textiles, which together account for about 5 percent of total state employment (approximately 95,000 people), are not expected to do as well as other industries where import competition is not as strong.

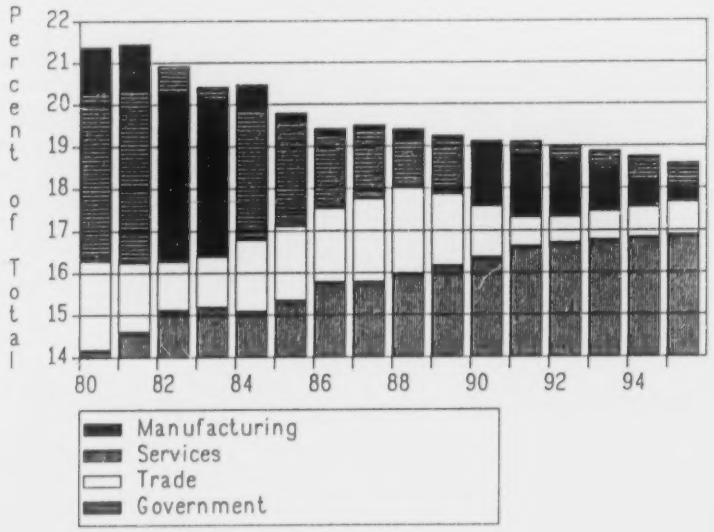
Textiles and Apparel. Both the textiles and apparel industries experienced moderate growth during the last two years. However, the slight increase in real output was still below the level of growth anticipated as a result of the dollar's decline. Labor saving productivity gains have returned some of the firms in these industries to competitive positions.

In 1989 real output in the textiles industry is estimated to grow by 0.3 percent, while apparel industry output is expected to increase by an average annual rate of 0.5 percent. Employment in textiles is estimated to decline by 1.9 percent in 1989, while apparel employment is expected to increase by only 0.2 percent annually in the same year.

Chemicals. The chemicals industry showed modest increases in output during 1987 and 1988. However, this growth is expected to level off despite the high demand in both international and domestic markets, in part due to capacity limitations. Real output of the chemicals industry is estimated to increase by only 0.6 percent in 1989, while employment is expected to increase at an average annual rate of approximately 0.1 percent.

Rubber and Plastics. The rubber and plastics industry is one of the fastest growing industries in the nondurable manufacturing group. Real output growth in this industry was fairly robust in 1988, an average annual

Employment Share of Total
Percent

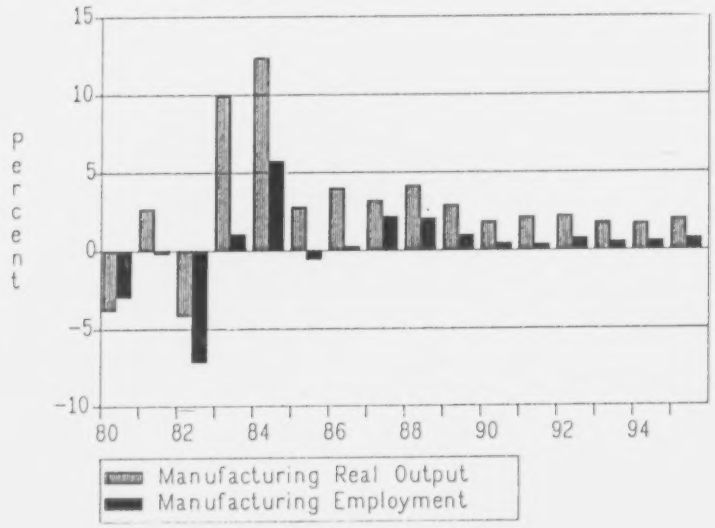


rate of 5.6 percent, primarily due to high demand in the tire manufacturing industry and the increasing use of plastics in other manufactured products. Real output in rubber and plastics manufacturing is estimated to increase by approximately 2.3 percent in 1989, with employment expected to increase at an average annual rate of 2.2 percent.

Paper. The paper industry is expected to continue its steady growth in 1989. Faced with extremely high capacity utilization rates and strong demand in both domestic and international markets, real output of the paper industry is expected to grow at an average annual rate of 3.2 percent in 1989, while employment is expected to increase only by 0.5 percent. A main factor for the slow growth in employment is the already high wage rate in this industry. The estimated average annual wage rate in the paper industry is expected to be approximately $38,000 for 1989.

"Real output in rubber and plastics manufacturing is estimated to increase by approximately 2.3 percent in 1989, with employment expected to increase at an average annual rate of 2.2 percent."

MANUFACTURING REAL OUTPUT VS MANUFACTURING EMPLOYMENT -- PERCENT CHANGE



Printing and Publishing. The printing and publishing industry is also expected to show strong growth. In 1989 real output of this industry is expected to increase at an average annual rate of 4.0 percent with employment reaching approximately 14,000 people, an increase of 3.5 percent over 1988. This growth in printing and publishing is a strong factor in explaining the strength of the paper and chemicals industries.

DURABLE MANUFACTURING

The durable manufacturing group is expected to perform relatively better than the nondurable group in Alabama. Durable manufacturing industries account for approximately 14 percent of total real state output, or approximately $7.3 billion, and for about 9 percent of total state employment. Durable manufacturing output is expected to grow at an average annual rate of 3.7 percent in 1989, while employment is expected to increase at an average annual rate of 1.7 percent, reaching 186,000 jobs. As with nondurable manufacturing, the outlook for the durable goods industries varies greatly from industry to industry.

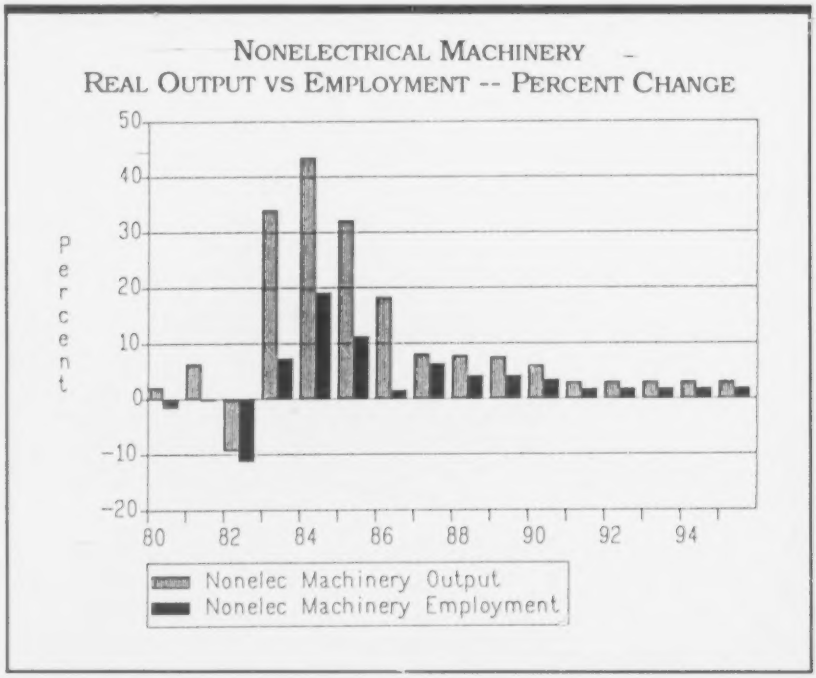
Lumber. If the construction activity in the state slows in 1989, it will have an impact on the state's lumber and steel industries. Real output in the lumber industry is estimated to increase only by 3 percent in 1989, compared to an increase of 6.4 percent in 1988. Employment in this industry is also expected to increase slightly at an average annual rate of 1.1 percent in 1989. Along with a decline in construction activity, substantial increases in the imports of lumber from Canada are also expected to put a damper on the state's lumber industry.

Metals. The steel industry in Alabama has enjoyed a steady growth in real output during recent years. Despite this growth, employment in steel manufacturing has been consistently declining as a result

of a modernization program enhancing productivity of the work force. This modernization, along with favorable exchange rates, has contributed to some resurgence of the steel sector in Alabama. However, as construction activity in the state slows down in 1989, both output and employment in the steel industry are also expected to grow at a slower rate in 1989.

In 1989 real output of the primary metals industry is expected to increase by approximately 3 percent, while employment in this industry is only expected to increase by an average annual rate of 0.4 percent. Real output of fabricated metals is expected to increase by 1.4 percent in 1989. Fabricated metal products include cans and shipping containers, hardware and plumbing products, and ordnance and accessories. Employment in fabricated metals is also estimated to increase slightly by an average annual rate of 2.2 percent.

"While nonelectrical machinery only constitutes 1.2 percent of total state employment, its employment growth is estimated to be one of the highest in the state, increasing at an average annual rate of 4.1 percent, providing 23,400 jobs by 1989."



Machinery. Nonelectrical machinery manufacturing has been one of the strongest growing industries in the state's economy. This growth is expected to continue and the nonelectrical machinery manufacturing industry is expected to have another good year in 1989. Real output is estimated to increase at an average annual rate of 7.5 percent in 1989. While nonelectrical machinery only constitutes 1.2 percent of total state employment, its employment growth is estimated to be one of the highest in the state, increasing at an average annual rate of 4.1 percent, providing 23,400 jobs by 1989.

Electrical machinery is also expected to maintain an above average growth rate. Real output in this industry is estimated to increase by a 2.4 percent average annual rate in 1989, while its employment is expected to increase by 2.0 percent annually.

Major reasons for the strong growth in machinery manufacturing are the high levels of business investment spending in these industries due to a strong demand in both national and international markets, and to some extent an increase in foreign direct investment in these industries in the state.

Mining

The mining sector in Alabama, primarily coal mining and oil and gas extraction, accounts for 3.2 percent of total state output and for 0.6 percent of total state employment. Mining employment has been on a declining trend since its peak in 1980. Low crude oil prices since 1986 suggest continued sluggishness. In 1989 employment in mining is expected to decline by an average annual rate of 1.2 percent, and real output is estimated to decline by an average annual rate of 1.5 percent.

Natural gas extraction is expected to perform relatively better than coal mining in the state. The demand for natural gas used by the manufacturing sector is estimated to grow at a moderate rate until the economic expansion slows down to a more moderate rate of growth.

Construction

The construction sector in Alabama declined slightly in 1988, largely as the result of the 1986 tax reforms, slightly higher mortgage rates, and oversupply in some areas. Employment in this sector is expected to decline further in 1989 as interest rates continue to move upward.

"Mining employment has been declining since its peak in 1980."

A decline in the number of housing starts indicates that both the real output and employment in the construction sector will decline in 1989. Real output is estimated to decline at an average annual rate of 1.1 percent, while employment is expected to increase at a 0.9 percent annual rate in 1989.

If the Federal Reserve moves towards a policy of tighter money in the second half of 1989, it could push interest rates still higher, which in turn will cause further declines in the state's construction activity. The construction sector is highly interest sensitive and thus as the state's economy is forecasted to go through a slight decline in the growth rate in 1990, real output and employment are expected to decline in 1990.

Trade

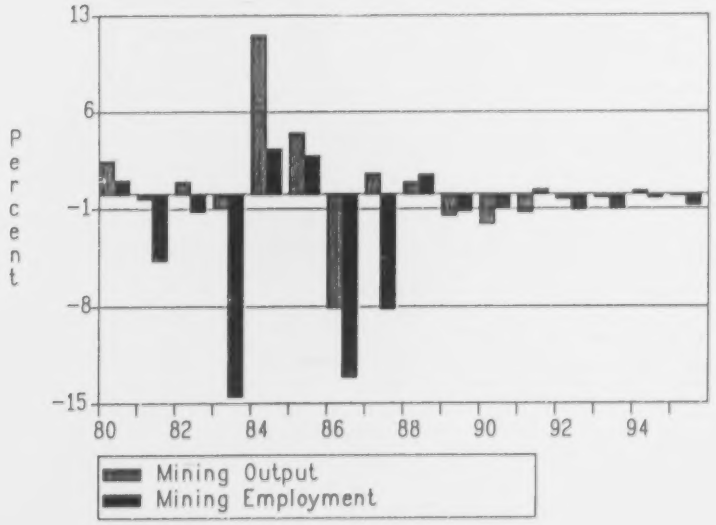
The trade sector has exhibited steady growth during recent years and has been a major contributor to economic growth both at the national and state levels. The main reason for this growth has been the increasing level of consumer spending.

"The trade sector has enjoyed very stable and steady growth during recent years and has been a major contributor to economic growth both at the national and state levels."

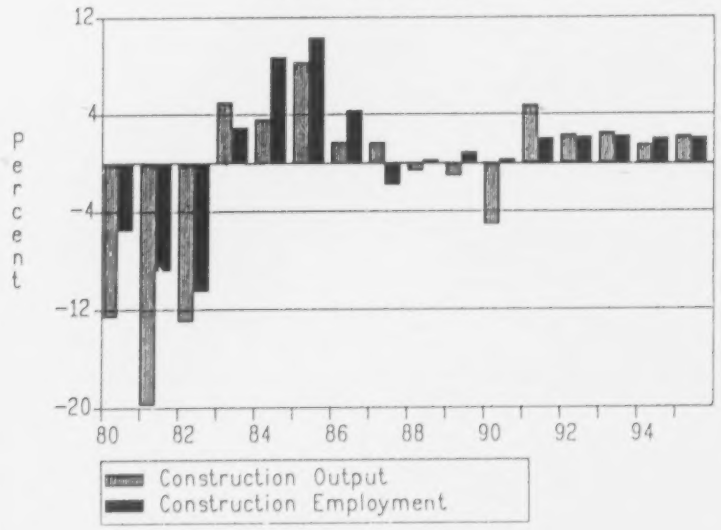
Changes in the tax laws, growing consumer debt, and slightly higher interest rates may cause expenditures on durable goods to decline. A slowdown in both retail and wholesale trade industries is expected in 1989.

The trade sector in Alabama accounts for approximately 17 percent of total real state output ($8.6 billion in 1989) and for about 18 percent of total state employment. After growing at approximately 5 percent annually during the last five years, real output is expected to increase by an average annual rate of only 2.1 percent in 1989. Employment is expected to increase by 1.0 percent in 1989, accounting for approximately 352,000 people.

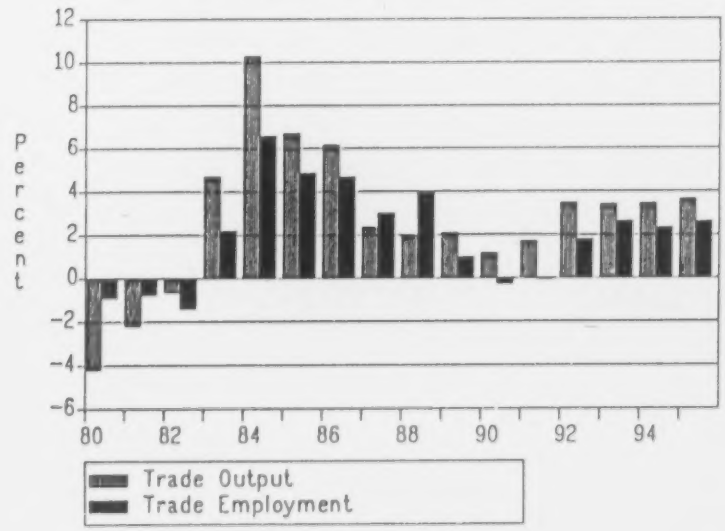
Mining Real Output vs Mining Employment
Percent Changes



CONSTRUCTION OUTPUT VS CONSTRUCTION EMPLOYMENT
PERCENT CHANGES



TRADE OUTPUT VS TRADE EMPLOYMENT
PERCENT CHANGES



SERVICES

The services sector in Alabama is the fourth largest employer in the state, accounting for approximately 16 percent of total state employment and approximately 13 percent of total state output. While the services sector's share of real output is expected to increase over the forecast period, its employment share in the state's economy is not expected to change significantly. In 1989 employment in services is expected to increase by 3.1 percent, employing a total of approximately 319,000 people, while real output is expected to increase by 2.4 percent.

"The services sector in Alabama is the fourth largest employer in the state, accounting for approximately 16 percent of total state employment and approximately 13 percent of total state output."

The services sector, which includes business services; repair services; health services; amusement and recreation; and hotels and lodging places, is linked to other major sectors of the state's economy, e.g. manufacturing, trade, and government. If the state's economic growth slows down in 1989 to a more moderate level, the services sector is expected to feel both direct and indirect effects of this slowdown in

economic activity. However, business services, which is the largest employer within this sector, is expected to perform well as more and more businesses become automated and computerized.

Finance, Insurance, and Real Estate

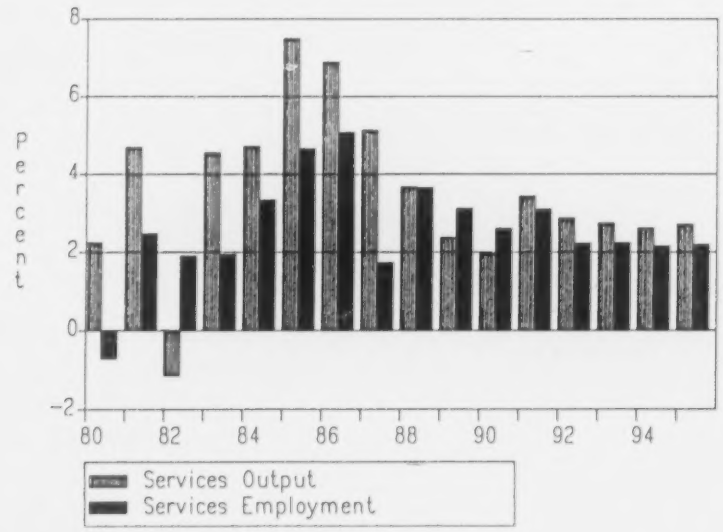
The finance, insurance, and real estate (FIRE) sector in Alabama accounts for approximately 12 percent of the state's total real output ($6.4 billion) and for about 4 percent of total state employment (approximately 75,000 people). This sector has shown strong growth during recent years, primarily due to strong real estate and financial services.

The FIRE sector is extremely sensitive to changes in economic conditions. The real estate industry is expected to suffer a slight decline as mortgage rates drift higher in 1989. Real output of the FIRE sector is expected to grow at an average annual rate of 3.7 percent in 1989, while employment is expected to grow at an annual rate of 2.9 percent.

Transportation, Communications, and Public Utilities

The transportation, communications, and public utilities (TCPU) sector in Alabama, which includes air, water, and land transportation; pipe lines; and communication and utility services, accounts for approximately 10 percent of total state output and for 3.8 percent of total state employment. Real output of TCPU in 1989 is estimated to grow at a moderate average annual rate of 2.8 percent. Employment is estimated to grow at an average annual rate of 1.4 percent.

Services Output vs Services Employment
Percent Changes



"The real estate industry is expected to suffer a slight decline as mortgage rates drift higher in 1989."

Although real output and employment in the utilities industry have been declining in recent years, large capital outlays and reductions in employment have now positioned the industry to absorb the shocks of a slowing economy. Transportation and communications have enjoyed moderate growth rates in both real output and employment, mainly due to the strengths of the manufacturing, trade, and services sectors. But as the state economy slows down in 1989, growth of the TCPU sector will moderate.

Government

The government sector in Alabama includes state, local, and federal governments. Together these governments constitute the second largest employer in the state, accounting for approximately 19 percent of total state employment, or 366,800 workers. Real output of this sector accounts for about 14 percent of total state output or $7.4 billion.

Reductions in federal government expenditures have slowed the growth of federal government employment in the state. However, employment at

the state and local level is expected to continue to increase at a moderate rate. In 1989 federal government employment is estimated to increase at an average annual rate of 0.5 percent, while state and local government employment is expected to grow at an average annual rate of 1.4 percent. Federal government real output is expected to decline by an average annual rate of 0.2 percent, while state and local government real output is estimated to grow by an average annual rate of 2.7 percent.

Farming

The farming sector, which includes agricultural services, forestry, and fisheries, has been on a declining path during the past few years. The 1988 drought took its toll during the latter part of 1988 and early 1989. Some of the losses suffered are expected to be offset by higher farm product prices in 1989. Real farm output in Alabama is estimated to increase at a 2.3 percent rate in 1989. The decline in the total number of farms in the state during 1985-1986 impacted farm employment which continued to decline until 1988. However, no further drop in farm employment is expected in 1989.

Total Personal Income and Unemployment Rate

Total personal income in Alabama will grow at a rate of 7.0 percent in 1989, reaching $51.1 billion. The national inflation rate is expected to be 5.1 percent in 1989. Therefore, after inflation, real personal income is estimated to increase by approximately 2 percent in 1989. The average per capita personal income in the state is estimated to be $12,000 in 1989, about 70 percent of the national average per capita income.

"The average per capita personal income in the state is estimated to be approximately $12,000 in 1989, about 70 percent of the national average per capita income."

Historically, throughout the 1980s the Alabama unemployment rate has always been above the national average and it is estimated to remain so through the forecast period. In 1989 the Alabama unemployment rate is expected to increase slightly to 7.0 percent. □

ALABAMA'S LONG TERM OUTLOOK

"The state's economy is expected to go through a downturn in the business cycle in 1990, when real output is estimated to increase only by 1.8 percent."

The long term economic outlook for Alabama for 1990 to 1995 shows a moderate growth parallel to that of the national economy. The total real state output is estimated to grow at an average annual rate of 2.1 percent during this period. This rate is slightly below the average annual rate of 2.5 percent for the nation's gross national product during the same period. The state's economy is expected to go through a downturn in the business cycle in 1990, when real output is estimated to increase only by 1.8 percent. Total state employment is expected to increase at an annual rate of 1.7 percent during 1990 to 1995.

During the same five year period the state's unemployment rate is estimated to stay about a percentage and a half point above the national average. The average annual unemployment rate over the period is expected to be 7.2 percent, peaking at 7.4 percent in 1990. Total personal income in current dollars for the state is expected to grow approximately 7 percent annually, reaching $75.6 billion by 1995.

Between 1990 and 1995, the manufacturing sector in Alabama is expected to grow at a rate of 1.9 percent. The modernization of this sector, along with a growing export market, should help the state's industrial sector absorb the mild downturn in business conditions in 1990. However, some of the other sectors in the state (construction, mining, real estate, and agriculture), which do not have a solid export base, may feel a much greater impact of the downturn. Strong growth is expected in nonelectrical and electrical machinery manufacturing, paper, printing and publishing, and rubber and plastics industries.

The expected slowdown in 1990 may produce sluggish growth in industries such as apparel, textiles, chemicals, and metals, all of which account for relatively large shares of total state employment. This sluggishness is expected to have an adverse effect on the construction, trade, real estate, and services sectors as well.

Continued price pressures on the world's oil market during the forecast period are expected to keep coal prices in the state down. Real output and employment in Alabama's mining sector are therefore expected to grow only at very modest rates.

Higher mortgage rates and sluggish economic growth expected in 1990 are also expected to produce above average declines in real output and employment in the construction sector. However, as conditions in the national economy start to improve by 1991, construction should rebound and then slow to a more moderate rate in the latter years of the forecast period. □

Major Assumptions for the Alabama Economic Outlook

The National Forecast (The WEFA Group)

Oil Prices

The price of oil is expected to increase slightly during the first half of 1989 to $16.50 per barrel. During the second half of 1989 and into 1990, weak world demand is expected to push the oil price downward. On an annual basis, the price of oil per barrel should average $15.69 in 1989, $14.56 in 1990, and $16.69 in 1991.

The Dollar

Further declines in the exchange value of the dollar are expected. However, the rate of decline will be moderate over the forecast period. Using the real Morgan Guaranty index of 40 trade-weighted currencies, The WEFA Group expects the dollar to fall by an additional 6 to 9 percent by the end of 1989. U.S. current account deficits will cause further depreciation of the dollar, averaging 5.3 percent in 1990 and 2.8 percent in 1991.

Taxes and Government Expenditures

A $30 billion tax increase package will be phased in over five quarters beginning in late 1989. This package includes the gasoline tax, other excise taxes, and increases in corporate and personal income tax rates. Federal government deficits are expected to be $146 billion in FY1989, $119 billion in FY1990, and $94 billion in FY1991.

Monetary Policy

The WEFA Group forecast expects an increase in the federal funds rate through the first half of 1989, reaching a peak of 9.5 percent. Rising short term rates reflect the Federal Reserve's desire to contain real growth within the 2.0 to 2.5 percent range in order to prevent an acceleration of inflation. The federal funds rate is expected to fall only 25 basis points to 9.25 percent by the end of 1989, and should average 9.4 percent in 1989, 8.6 percent in 1990, and 8.1 percent in 1991.

Assumptions for the Alabama Forecast

- Real GNP will increase by 2.7 percent in 1989, 2.2 percent in 1990, and 2.5 percent in 1991.
- Consumer spending will increase by 2.5 percent in 1989, followed by a growth rate of 2.4 percent in 1990, and 2.3 percent in 1991.
- Fixed investment will increase 3.4 percent in 1989, followed by increases of 2.7 percent in 1990 and 4.0 percent in 1991.
- Housing starts will average 1.41 million units in 1989, 1.46 million units in 1990, and 1.59 million units in 1991.
- Industrial production will rise 3.8 percent in 1989, 2.1 percent in 1990, and 3.1 percent in 1991.
- Consumer price inflation will average 5.1 percent in 1989, 4.8 percent in 1990, and 5.3 percent in 1991.
- Current account deficit will average $130 billion in 1989, $128 billion in 1990, and $137 billion in 1991.
- Total employment will increase by 1.5 percent in 1989, 1.0 percent in 1990, and 1.4 percent in 1991.
- Unemployment rate is expected to be 5.5 percent in 1989, 5.8 percent in 1990, and 5.6 percent in 1991. □

DATA SOURCES

Alabama Department of Industrial Relations, Research and Statistics Division, *Annual Average Labor Force Estimates* and *Statistical Bulletin*.

Center for Business and Economic Research, The University of Alabama, Population Estimates and Projections.

U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Analysis Division, Gross State Product Historical Estimates.

U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Measurement Division, Special tabulations on employment, income, and earnings.

The WEFA Group, *Wharton Long Term Forecast*.

TABLE 1.00 1989 ALABAMA ECONOMIC OUTLOOK
SELECTED INDICATORS

		1982	1983	1984	1985	1986	1987	1988	1989	1990
ATGSP	GROSS STATE PRODUCT CUR $ (MIL).	40328.00	44017.58	48756.66	52045.04	55066.50	58414.10	62686.57	67021.73	71205.41
	Percent Change.....	4.0	9.1	10.8	6.7	5.8	6.1	7.3	6.9	6.2
GNP$	GROSS NAT'L PRODUCT CUR $ (BIL).	3166.00	3405.70	3772.20	4014.90	4240.30	4526.70	4861.86	5216.76	5565.86
	Percent Change.....	3.7	7.6	10.8	6.4	5.6	6.8	7.4	7.3	6.7
ATRSP	GROSS STATE PRODUCT 82 $ (MIL).	40328.00	42245.00	45118.00	46849.00	48409.00	49907.68	51566.91	52749.65	53685.93
	Percent Change.....	-1.9	4.8	6.8	3.8	3.3	3.1	3.3	2.3	1.8
GNP	GROSS NAT'L PRODUCT 82 $ (BIL).	3166.00	3279.10	3501.40	3618.70	3721.70	3847.00	3998.08	4104.66	4194.39
	Percent Change.....	-2.5	3.6	6.8	3.4	2.8	3.4	3.9	2.7	2.2
	PER CAPITA GSP 82 $ (THOU).....	10.23	10.67	11.31	11.65	11.94	12.21	12.51	12.69	12.82
	Percent Change.....	-2.3	4.3	6.0	3.0	2.5	2.2	2.5	1.5	1.0
	PER CAPITA GNP 82 $ (THOU).....	13.62	13.97	14.77	15.12	15.40	15.77	16.23	16.50	16.69
	Percent Change.....	-3.5	2.6	5.7	2.4	1.8	2.4	2.9	1.7	1.2
	PER CAP GSP/PER CAP GNP (%).....	75.13	76.39	76.59	77.05	77.53	77.38	77.07	76.92	76.77
PDGNP	GNP DEFLATOR (% CHANGE).....	6.4	3.9	3.7	3.0	2.7	3.3	3.3	4.5	4.4
PDCE	PERS CONS DEFL (% CHANGE).....	5.7	4.1	3.8	3.3	2.4	4.5	4.2	5.0	4.7
PCU	CONS PRICE INDEX (% CHANGE).....	6.2	3.2	4.3	3.6	1.9	3.6	4.1	5.1	4.8
ATPOP	POPULATION - ALABAMA (MIL).....	3.94	3.96	3.99	4.02	4.05	4.09	4.12	4.16	4.19
NPT	POPULATION - USA (MIL).....	232.52	234.80	237.10	239.30	241.70	243.90	246.38	248.82	251.26
ALABAMA	TOTAL EMPLOYMENT (MIL).....	1.68	1.70	1.77	1.82	1.86	1.89	1.94	1.97	2.00
	Percent Change.....	-1.6	1.5	4.0	2.9	2.2	1.7	2.5	1.8	1.3
AUER	ALABAMA UNEMPLOYMENT RATE (%)...	14.3	13.7	11.2	8.9	9.8	7.8	7.0	7.0	7.4
NRUT	US UNEMPLOYMENT RATE (%).....	9.7	9.6	7.5	7.2	7.0	6.2	5.5	5.5	5.8

SOURCE: CENTER FOR BUSINESS AND ECONOMIC RESEARCH, THE UNIVERSITY OF ALABAMA

TABLE 1.00 1989 ALABAMA ECONOMIC OUTLOOK
SELECTED INDICATORS-(CONTINUED)

		1982	1983	1984	1985	1986	1987	1988	1989	1990
ATPY	TOTAL PERSONAL INC CUR $ (MIL)..	32078.80	34098.30	37179.46	39653.33	42019.29	44638.31	47803.61	51146.10	54584.63
	Percent Change.....	4.7	6.3	9.0	6.7	6.0	6.2	7.1	7.0	6.7
	TOTAL PERSONAL INC - 82 $ (MIL).	32078.80	32747.83	34408.81	35517.86	36747.19	37360.13	38397.57	39119.71	39876.72
	Percent Change.....	-0.9	2.1	5.1	3.2	3.5	1.7	2.8	1.9	1.9
ATPYPC	ALABAMA PER CAPITA CUR $.....	8137.70	8610.68	9320.50	9861.56	10362.34	10916.68	11594.38	12303.61	13030.47
	Percent Change.....	4.3	5.8	8.2	5.8	5.1	5.3	6.2	6.1	5.9
UTPYPC	US PER CAPITA CUR $	11486.32	12089.44	13111.35	13895.95	14609.43	15498.16	16499.52	17647.58	18691.56
	Percent Change.....	4.9	5.3	8.5	6.0	5.1	6.1	6.5	7.0	5.9
ALA/US	COMPARATIVE ADVANTAGE.....	70.85	71.22	71.09	70.97	70.93	70.44	70.27	69.72	69.71
ADPY	ALA DIS INC CUR $ (MIL).....	27287.83	29129.48	32041.08	33943.44	36047.85	37997.17	40966.61	43911.50	46756.84
	Percent Change.....	5.4	6.7	10.0	5.9	6.2	5.4	7.8	7.2	6.5
	ALA DIS INC 82 $ (MIL).....	27287.83	27975.80	29653.35	30403.46	31524.98	31801.82	32905.84	33586.23	34158.14
	Percent Change.....	-0.2	2.5	6.0	2.5	3.7	0.9	3.5	2.1	1.7
	ALA PER CAP DISP INC 82 $	6922.33	7064.59	7433.78	7561.17	7774.35	7777.41	7981.04	8079.44	8154.25
	Percent Change.....	-0.6	2.1	5.2	1.7	2.8	0.0	2.6	1.2	0.9
AWPANM	NONDUR WAGES - ALA CUR $ (THOU).	15.1	16.2	17.0	17.7	18.5	19.3	20.2	21.1	22.4
	Percent Change.....	5.4	6.9	5.2	4.2	4.0	4.3	5.0	4.2	6.1
AWPADM	DURABLE WAGES - ALA CUR $ (THOU)	17.6	18.4	19.2	20.3	21.2	21.7	22.8	23.8	25.2
	Percent Change.....	2.4	4.5	4.8	5.6	4.3	2.4	5.1	4.5	5.8

SOURCE: CENTER FOR BUSINESS AND ECONOMIC RESEARCH, THE UNIVERSITY OF ALABAMA

TABLE 1.01 1989 ALABAMA ECONOMIC OUTLOOK
GROSS NATIONAL PRODUCT -- CONSTANT 82 $ (BILLIONS)

	1982	1983	1984	1985	1986	1987	1988	1989	1990
GROSS NATIONAL PRODUCT.....	3166.00	3279.10	3501.40	3618.70	3721.70	3847.00	3998.08	4104.66	4194.39
PERCENT CHANGE.....	-2.55	3.57	6.78	3.35	2.85	3.37	3.93	2.67	2.19
PERSONAL CONSUMPTION EXPENDITURES...	2050.66	2146.04	2249.33	2354.82	2455.23	2520.95	2590.51	2653.88	2717.72
PERCENT CHANGE.....	1.31	4.65	4.81	4.69	4.26	2.68	2.76	2.45	2.41
DURABLE GOODS.....	252.65	283.10	323.12	355.14	384.99	390.95	406.26	410.38	423.49
PERCENT CHANGE.....	0.75	12.05	14.14	9.91	8.40	1.55	3.92	1.01	3.19
NONDURABLE GOODS.....	771.00	800.22	825.86	847.38	879.53	890.52	900.26	911.28	920.84
PERCENT CHANGE.....	0.86	3.79	3.20	2.61	3.79	1.25	1.09	1.22	1.05
SERVICES.....	1027.01	1062.72	1100.35	1152.30	1190.71	1239.48	1283.99	1332.22	1373.39
PERCENT CHANGE.....	1.78	3.48	3.54	4.72	3.33	4.10	3.59	3.76	3.09
GROSS PRIVATE DOMESTIC INVESTMENT...	447.30	504.00	658.40	637.00	643.50	674.80	722.39	737.83	749.17
PERCENT CHANGE.....	-18.00	12.68	30.63	-3.25	1.02	4.86	7.05	2.14	1.54
FIXED INVESTMENT.....	471.80	510.40	596.10	627.90	628.10	640.40	681.67	705.21	724.58
PERCENT CHANGE.....	-9.56	8.18	16.79	5.33	0.03	1.96	6.45	3.45	2.75
NONRESIDENTIAL.....	366.70	361.20	425.20	453.50	433.10	445.10	491.25	513.73	526.33
PERCENT CHANGE.....	-7.21	-1.50	17.72	6.66	-4.50	2.77	10.37	4.58	2.45
RESIDENTIAL STRUCTURE.....	105.10	149.30	170.90	174.40	195.00	195.20	190.42	191.48	198.25
PERCENT CHANGE.....	-16.92	42.06	14.47	2.05	11.81	0.10	-2.45	0.56	3.54
CHANGE IN BUSINESS INVENTORIES....	-24.50	-6.40	62.30	9.10	15.40	34.40	40.71	32.61	24.59
NET EXPORTS OF GOODS & SERVICES.....	26.30	-19.90	-84.00	-104.30	-137.50	-128.90	-97.34	-85.87	-74.88
EXPORTS.....	361.90	348.10	371.80	367.20	378.40	427.80	503.20	536.85	554.42
PERCENT CHANGE.....	-7.84	-3.81	6.81	-1.24	3.05	13.05	17.62	6.69	3.27
IMPORTS.....	335.60	368.10	455.80	471.40	515.90	556.70	600.53	622.73	629.30
PERCENT CHANGE.....	-2.27	9.68	23.83	3.42	9.44	7.91	7.87	3.70	1.05
GOVT. PURCHASES OF GOODS & SERVICES.	641.70	649.00	677.70	731.20	760.50	780.20	782.52	798.83	802.38
PERCENT CHANGE.....	1.91	1.14	4.42	7.89	4.01	2.59	0.30	2.08	0.45
FEDERAL.....	272.70	275.10	290.80	326.00	333.40	339.00	329.76	337.95	332.63
PERCENT CHANGE.....	5.05	0.88	5.71	12.10	2.27	1.68	-2.73	2.48	-1.57
STATE AND LOCAL.....	369.00	373.90	387.00	405.20	427.10	441.20	452.76	460.88	469.75
PERCENT CHANGE.....	-0.30	1.33	3.50	4.70	5.40	3.30	2.62	1.79	1.93

SOURCE: CENTER FOR BUSINESS AND ECONOMIC RESEARCH, THE UNIVERSITY OF ALABAMA